

**Trace Metals by Flame Atomic Absorption Spectrophotometry  
EPA 7000B**

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Facility Name: \_\_\_\_\_ VELAP ID \_\_\_\_\_

Assessor Name: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Inspection Date \_\_\_\_\_

**Relevant Aspect of Standards****Method  
Reference****Y****N****N/A****Comments***Records Examined:* SOP Number/ Revision/ Date \_\_\_\_\_ Analyst: \_\_\_\_\_

Sample ID: \_\_\_\_\_ Date of Sample Preparation: \_\_\_\_\_ Date of Analysis: \_\_\_\_\_

For dissolved elements, are samples filtered using 0.45  $\mu\text{m}$  pore diameter membrane filters and then preserved using (1+1) nitric acid to pH <2?

8.0

For total recoverable elements, are samples NOT filtered and acidified using (1+1) nitric acid to pH&lt;2?

8.0

For total recoverable elements, are samples held for 16 hours after preservation and then verified to be pH&lt;2 just prior to withdrawing an aliquot for processing? (If pH is not &lt;2, additional acid is added and sample is held for an additional 16 hours and rechecked.)

8.0

Are solid samples stored at 4°C?

8.0

Are samples analyzed within 6 months of collection?

8.0

Are all samples digested except those requiring analysis for dissolved elements? (Any of the EPA methods listed in Chapter 3 are suitable for sample preparation.)

1.1

Is a laboratory reagent blank carried through the entire sample preparation with each batch of samples?

9.5

Is a laboratory control sample carried through the entire process including sample preparation?

9.6

Is the laboratory control sample within  $\pm 20\%$  recovery?

9.6

Is at least one spike and one duplicate or spike duplicate analyzed with each preparation batch?

9.7

Is spike recovery within  $\pm 25\%$ ?

9.7

Is relative percent difference within 20%?

9.7

Notes/Comments:

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Are calibration standards and the calibration blank prepared using acid diluent to match the acid concentrations in the samples?	10.1				
Does the calibration include a calibration blank and at least three calibration standards, and is the correlation coefficient at least 0.995?	10.2				
Are an initial calibration verification standard and an initial calibration blank analyzed immediately after calibration? The ICV must be from a separate source and mid-range.	10.2.1				
Are a continuing calibration verification standard and a continuing calibration blank analyzed after every 10 <sup>th</sup> sample and at the end of the run? The CCV must be mid-range and made from the same stock as the calibration standards.	10.2.1, 10.2.2				
Are the initial calibration verification standard and the continuing calibration verification standard within 10% recovery?	10.2.1, 10.2.2				
Is a suitable form of background correction used?	11.2				
Is the lamp allowed to warm up for at least 15 minutes?	11.3.1				

Notes/Comments: